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**Remski**

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(54) **EXPANDING LATTICE NOTCH ARRAY ANTENNA**

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CPC ..... **H01Q 21/064** (2013.01); **H01Q 13/10** (2013.01); **H01Q 21/06** (2013.01); **H01Q 21/061** (2013.01); **H01Q 21/20** (2013.01)

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See application file for complete search history.

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#### (57) **ABSTRACT**

The present disclosure is directed toward a notch array antenna comprised of a plurality of notch antenna elements projecting from a surface of a base plate at varying angles to provide an array having an expanding element structure. The plurality of notch antenna elements are organized in a regular spacing in one or two directions along the surface of the base plate and each of the plurality of notch antenna elements is formed by a gap between conductive parts projecting from the first surface of the base plate. The notch array antenna includes a plurality of notch antenna element axes, whereby each notch antenna element axis is defined along a centerline of one of the notch antenna elements. Each notch antenna element axis may extend from the first surface of the base plate at systematically varying angles with respect to an axis perpendicular to the base plate.

**20 Claims, 10 Drawing Sheets**

